

November 20, 1961

MEMORANDUM FOR: Dr. Jerome B. Wiesner

SUBJECT: Report on MIDAS of DDR&E Ad Hoc Group

FROM: PSAC AICBM Panel

The AICBM Panel endorses the conclusions of the DDR&E group in general terms (some of the members of the PSAC Panel participated in the DDR&E group).

The Panel agrees with the conclusions of the DDR&E group concerning the military value of MIDAS. There are, however, serious criticisms concerning the technical management of the program. Not only was the over-all system design objective frozen prematurely and broken into contract bits without a real evaluation or understanding of the proposed system; not only has work proceeded toward an operational system in considerable ignorance of background and signal characteristics; but many ordinary engineering decisions of the program have been unsound. At the present moment there are seven layers of Air Force authority between the MIDAS Project Office and the Assistant Secretary of the Air Force for Research and Development. This is a completely impossible arrangement considering the state of the program.

The problem is to have the development proceed under an informed management which requires a really intimate and informal relation with the research activity. A very close coupling between research and development allows many development problems to be solved as they arise without the necessity of contracting special research tasks. Lockheed's own research division could have a major beneficial effect if it could work on the program with fewer and unrestricted barriers from the MIDAS work itself. The following specific recommendations appear warranted:

(1) The program should only be an R&D activity without aiming for a specific operational date or aiming at a specific operational system.

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(2) This R&D program should develop as soon as possible a new proposal for an operational system. Such a new proposal should: (a) aim to simplify the system to the maximum possible extent, (b) examine the data-handling problem and missile-track-recognition problem in detail, (c) re-examine the payload design -- in particular as to reliability and signal level, (d) the design of the telemetering system should be integrated into the R&D program and be designed with the specific needs of the MIDAS in mind.

(3) The technical management of the program within the Air Force should be changed. We believe that the recommendation in the DDR&E report to have the research activities supported separately from the development goes in the wrong direction. We should, therefore, propose unified technical management of both the research and development activities with greatly improved technical monitoring of the operational program once it is re-initiated.

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